BK PRECISION

SHORT FORM CATALOG

ELECTRONIC TEST INSTRUMENTS

Digital Storage Oscilloscopes

Models 2530 & 2532

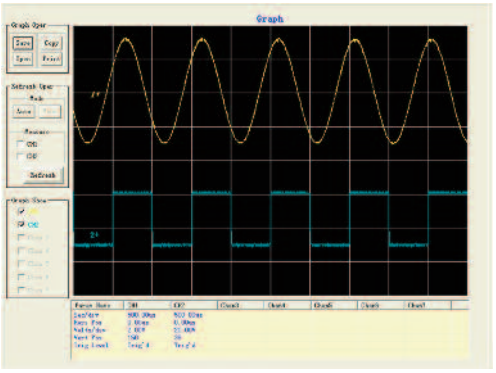
NEW

Essential features for the cost conscious user

The Digital Storage Oscilloscope models 2530 & 2532 deliver essential features and reliable performance at a price you can afford. Analog style controls combined with Auto functions make these oscilloscopes easy to use. Advanced triggering, automatic measurements and FFT functions provide you with many options to debug your circuits.
Additionally, the instruments come with PC Software that lets you easily capture, save and analyze waveforms and measurement results.

- 25 MHz and 40 MHz bandwidth and sample rate up to 500 MSa/s Real Time
- Monochrome (2530) or Color (2532) LCD
- One touch automatic setup for ease of use (Auto)
- 4000 point record length for each channel
- Eleven automatic measurements
- FFT standard plus 4 additional math functions
- Extensive Trigger capabilities including Pulse Width and line-selectable Video trigger
- Save/Recall setup and waveform data
- Multiple language interface

Simple Documentation and Analysis

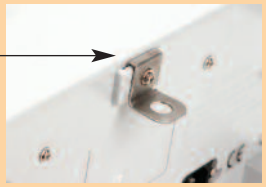


The included Easyscope software provides seamless integration between the oscilloscope and PC. Capture and transfer waveforms, screen images, setups and measurement results to a Windows PC via the USB device port on the back of the instrument.

- Save waveform data in csv (Microsoft Excel) format for post acquisition analysis
- Document your results: Print, save or copy/paste waveform data and measurement results. Save and print bitmap images and setups
- Capture waveforms and measurement results manually or automatically at user defined intervals. In automatic mode, the smallest refresh rate is 0.5 seconds, allowing for virtually real time waveform capture

Security loop

Use the built-in cable channel to secure your oscilloscope to your location



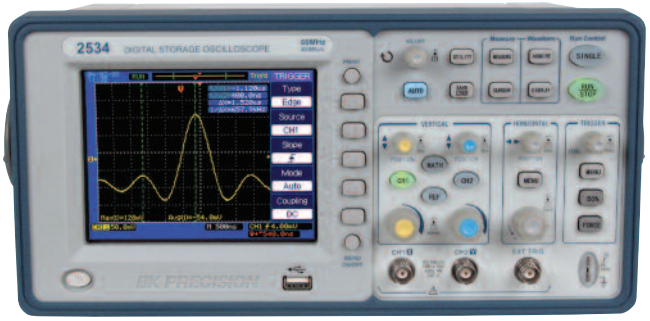
Features	2530	2532
Bandwidth	25 MHz	40 MHz
Sample Rate	250 MSa/s	500 MSa/s
Channels	2	2
Display	Monochrome LCD	Color LCD
Record Length	4000 points	4000 points
I/O interface	USB device port for connection to PC	
Vertical Resolution	8 bits	
Vertical Sensitivity	2 mV - 5 V /div	

Local distributor phone number?

Digital Storage Oscilloscopes

Models 2534, 2540, 2542

NEW



FULL FEATURED OSCILLOSCOPES THAT WON'T BREAK YOUR BUDGET

The Dual channel Digital Storage Oscilloscope models 2534, 2540 & 2542 deliver an unmatched combination of performance and value. Analog style controls combined with an Auto measurement function make these oscilloscopes easy to use. Advanced features such as FFT function, digital filtering, waveform recorder, delayed sweep/zoom, mask testing and automatic measurements provide you with powerful tools to debug your circuits.

The DSOs come with PC Software that lets you easily capture, save and analyze waveforms and measurement results. Unlike many other DSOs in this price category, they include two 150 MHz high performance passive probes that will not limit the bandwidth of your measurement system.

The 2534, 2540 & 2542 are ideal instruments for education and training and also well suited for design and debug, service and repair.

- 60 MHz and 100 MHz bandwidth and up to 1 GSa/s sample rate
- 4000 point record length for each channel
- Color LCD display
- USB front panel host and device connectivity standard
- Advanced features include digital filter with adjustable limits, mask testing and waveform recorder/replay mode
- 24 automatic measurements
- FFT standard plus 3 additional math functions
- Extensive Trigger capabilities including Pulse Width and line-selectable Video trigger
- Multiple language interface
- Capture, save and analyze waveform data with the included PC software

Convenient storage compartment

Store accessories in the oscilloscope's storage compartment and keep your work bench clutter free

Features	2534	2540	2542
Bandwidth	60 MHz	60 MHz	100 MHz
Sample Rate	400 MSa/s	1 GSa/s	1 GSa/s
Channels	2	2	2
Display	Color LCD	Color LCD	Color LCD
Record Length	4000 points		
I/O interface	Front panel USB host port, USB device port for connection to PC		
Vertical Resolution	8 bits		
Vertical Sensitivity	2 mV - 5 V/div		

DDS Generators

Models 4084, 4085, 4086 & 4087

Programmable DDS Function Generators

4086

B&K Precision's 4080 series are versatile laboratory grade synthesized function generators with a wide frequency range up to 120 MHz. Direct Digital Synthesis (DDS) techniques are used to generate stable, accurate output signals for all 27 built-in standard and complex (arbitrary) waveforms. The generator produces high purity, low distortion sine waves and provides a full suite of analog modulation capabilities including AM, FM, FSK, PSK, pulse modulation, burst mode and linear/logarithmic sweep combined with multiple trigger modes.

- Clean and stable output of very small signals down to the 1 mV – 10 mV range (50 Ω)
- Support of internal and external modulation sources as well as internal, external and gated trigger sources
- Fully programmable via the standard RS232 interface using SCPI compatible commands.
- Adjust modulation parameters precisely and over a wide range
- Seamless import of waveforms from any Tektronix® TDS1000, TDS2000, TPS2000 and TDS3000 series digital storage oscilloscope. Easily regenerate waveforms originating from the DSO's display or internal memory (Models 4084AWG/4086AWG only)
- 100 MHz universal counter with frequency measurement and totalize function

Models 4084AWG & 4086AWG

Arbitrary/ Function Generators

4084AWG

Unmatched affordability and high performance make the 4080 series a perfect fit for many applications in Electronic Test and Design, Sensor Simulation and Education and Training.

Custom waveform generation made easy (4084AWG/4086AWG)
In addition to the built-in complex waveforms, you can use the 4084AWG & 4086AWG to generate custom arbitrary waveforms with 10 bit vertical resolution, 16k memory depth and a sample rate of 200 MSa/s. Increase your productivity with the included intuitive Windows Software: Generate and edit waveforms and download them to the instrument with a single click.

Convenient user interface and operation
You can adjust parameters via knob or numeric keypad. Enter amplitude values directly in Vpp, mVpp, Vrms, mVrms or dBm and display the correct voltage by entering the actual output configuration used (terminated with 50 Ohm or open circuit). You can enter frequency in terms of frequency or seconds using time values s, ms, Hz, kHz or MHz. Submenus are used for modulation modes and other complex functions. The instrument also provides 10 memories to store and recall instrument settings. Additionally the current state is saved at power off and can be restored at power up.

Features	4084/4084AWG	4085	4086/4086AWG	4087
Sine	1 uHz - 20 MHz	1 uHz - 40 MHz	1 uHz - 80 MHz	1 uHz - 120 MHz
Square	1 uHz - 20 MHz	1 uHz - 40 MHz	1 uHz - 40 MHz	1 uHz - 40 MHz
Amplitude (into 50Ω)	1 mV ~ 10Vpp		≤ 40 MHz: 1 mV ~ 10 Vpp ≥ 40 MHz: 1 mV ~ 2 Vpp	≤ 40 MHz: 1 mV ~ 10 Vpp ≥ 40 MHz: 1 mV ~ 3 Vpp
Frequency Accuracy	≤ ±5 x 10-6 (22°C ± 5°C)			

Local distributor phone number?

DDS Generators

Model 4045

DDS Sweep Function Generator with AWG

The model 4045 is a must have for anyone needing a feature packed precision generator. A menu-driven front panel operation with an easy-to-read graphic LCD display makes the 4045 easy to operate. Parameter changes and data entry can be made using the rotary knob or programmatically via the RS-232C interface. Waveform editing can be done from scratch or by modifying standard waveforms.

- 20 MHz frequency range (sine & square only)
- Sine, Square, Triangle & Arbitrary Waveforms
- Modulation in both AM & FM
- Lin or Log Sweep Function
- Bright informative LCD
- RS-232C interface

Model 4040DDS

20 MHz DDS Sweep Function Generator

The model 4040DDS is a low cost, full featured Direct Digital Synthesis (DDS) generator with a menu-driven front panel interface that includes a large, easy-to-read graphical LCD display. Waveform parameter changes and data entry can be made using the front panel rotary knob. A full range of triggering capabilities is available, including internal-external trigger source and gated mode operation.

- 20 MHz Frequency Range (sine & square only)
- Sine, Square & Triangle
- Modulation in both AM & FM
- Lin or Log Sweep Function
- Adjustable Duty Cycle
- Adjustable DC Offset
- Bright Informative LCD

Models 4007DDS & 4013DDS

DDS Sweep Function Generators

4013DDS

Models 4007DDS & 4013DDS are versatile sweep function generators utilizing an advanced direct digital synthesis (DDS) design. These units generates superb quality waveforms with high signal precision and stability.

- 7 MHz(Model 4007DDS) , 12 MHz(Model 4013DDS) frequency ranges (sine & square only)
- Sine, Square, Triangle
- Lin or Log Sweep Function
- Adjustable Duty Cycle
- Adjustable DC offset

Models 4075 & 4078

25 MHz DDS Arbitrary/ Function Generators

NEW

Coming this winter

4078

Models 4075 & 4078 are DDS Arbitrary Function Generators that can generate a variety of both arbitrary and standard waveforms allowing them to fit a wide range of applications that require flexible waveform generation capabilities.

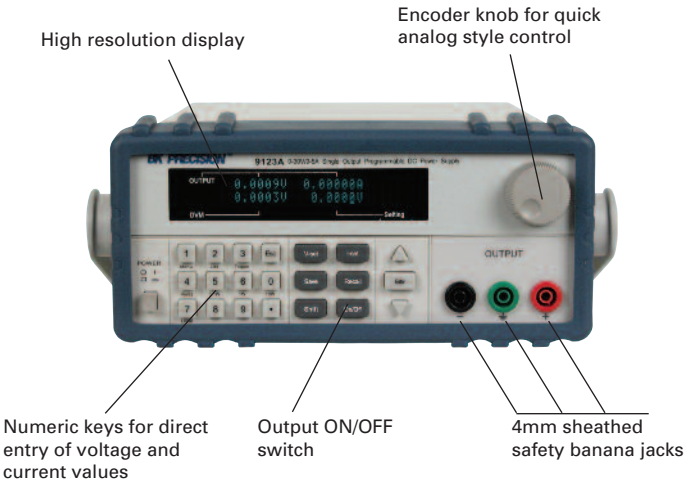
- Clean stable waveforms
- Graphical LCD
- 256,000 points per channel
- Phase lock or synchronized operation (model 4078)
- Separate DC offsets for each channel (model 4078)
- RS232 Interface
- Free WaveX software for generating and editing waveforms

Features	4007DDS	4013DDS	4040DDS	4045	4075	4078
Sine	0.1 Hz - 7 MHz	0.1 Hz - 12 MHz	0.1 Hz - 20 MHz	0.01 Hz - 20 MHz	1 uHz - 25 MHz	1 uHz - 25 MHz (both channels)
Amplitude (into 50Ω)	50 mV - 10 Vpp	50 mV - 10 Vpp	10 mV - 10 Vpp	10 mV - 10 Vpp	10 mV - 10 Vpp	10 mV - 10 Vpp
Flatness	±1 dB to 7 MHz	±1 dB to 12 MHz	±0.5 dB @ 1 MHz ±1 dB to 20 MHz	±0.5 dB @ 1 MHz ±1 dB to 20 MHz	±0.2 dB @ 1 MHz ±1 dB to 25 MHz	±0.2 dB @ 1 MHz ±1 dB to 25 MHz
Frequency Accuracy	100 ppm	100 ppm	100 ppm	50 ppm	20 ppm	20 ppm
Sweep Time	100 mS - 30 S	100 mS - 30 S	10 mS - 50 S	10 mS - 100 S	20 mS - 500 S	20 mS - 500 S

Power Supplies

Models 9120A, 9121A, 9122A, 9123A & 9124

Single Output Programmable DC Power Supplies


High resolution display
Encoder knob for quick analog style control
Numeric keys for direct entry of voltage and current values
Output ON/OFF switch
4mm sheathed safety banana jacks

B&K Precision models 9120A, 9121A, 9122A, 9123A and 9124 are laboratory grade Programmable DC Power Supplies providing great performance and features not found in other supplies in this price category. The 9120A series was designed to meet the need of today's applications in R&D design verification, production testing or
university labs that require clean and reliable power, high resolution and accuracy and fast transient response times.

- Excellent display resolution
- Low ripple and low noise, excellent temperature stability
- Fast transient response time (<20 ms)
- SCPI compatible RS232 (standard) and USB (optional) interface
- Front and Rear Output Terminals
- Closed case calibration
- Compact size for bench use or rack mountable (2U x 1/2U size)
- List mode operation for increased throughput.

Model 9130

Triple Output Programmable DC Power Supply

The 9130 is a fully programmable triple Output DC Power Supply delivering 0-30 V/0-3 A on 2 outputs and 0-5 V/0-3 A on 1 output. Each output is fully floating and outputs can be adjusted independently or connected in series or parallel to produce higher voltages or currents. The 9130 is ideally suited for applications in Electronic Test, Production and Service where multiple independent DC supplies are required and bench space is at a premium.

- 3 independent, fully programmable and electrically isolated outputs
- Display & adjust Voltage and Current settings for all 3 channels simultaneously
- Excellent stability and regulation
- Very compact foot print (rack mountable 2 U x 1/2 U)
- SCPI compatible command set. Communicate via USB to TTL serial converter cable or optional RS232 interface cable
- OVP (Over Voltage) and OTP (Over Temperature) protection
- Output on/off control
- Application Software for front panel emulation and simple test sequence generation included
- 50 memory locations for instrument state storage & recall
- Closed case calibration

Features	9120A	9121A	9122A	9123A	9124	9130
Output Ratings	0~32 V	0~20 V	0~60 V	0~30 V	0~72 V	0~3V(1&2), 0~5V(3)
(0° C ~ 40° C)	0~3 A	0~5 A	0~2.5 A	0~5 A	0~1.2 A	0~3A(1&2), 0~3A(3)
Load Regulation	<0.01%+2 mV		<0.01%+2 mV	<0.01%+2 mV	0.01%+2 mV	<0.01%+3 mV
±(%of output+offset)	<0.05%+1 mA		<0.05%+0.5 mA	<0.05%+1.5 mA	0.05%+0.3 mA	≤0.01%+3 mA
Line Regulation	<0.01%+1 mV		<0.01%+2 mV	<0.01%+1 mV	<0.01%+1 mV	<0.01%+3 mV
±(%of output+offset)	<0.05%+0.1 mA		<0.05%+0.05 mA	<0.05%+0.1 mA	≤0.05%+0.05 mA	≤0.01%+3 mA
Programming	0.1 mV		0.5 mV	0.1 mV	0.5 mV	1 mV
Resolution	0.1 mA		0.1 mA	0.1 mA	0.1 mA	1 mA
Ripple & Noise	4 mVp-p	3 mVp-p	5 mVp-p	4 mVp-p	5 mVp-p	≤1 mVrms/3 mvp-p
(20 Hz ~ 20 MHz)	≤3 mArms	≤3 mArms	≤3 mArms	≤4 mArms	≤3 mArms	≤3 mVrms

Local distributor phone number?

Model 1550

Switching DC Power Supply with USB Charger

NEW

The model 1550 is a compact 108 watt power supply delivering 1-36 V and 0-3 A from its main isolated output. A unique feature of the 1550 supply is the USB 1.1 charging port located on the front panel allowing the user to charge a cell phone or MP3 player. Clean power and quiet operation make this power supply ideal for any bench in laboratories, work shops and schools where bench space is limited.

- USB 1.1 charging port on front panel*
- Rear panel security loop
- Output On/Off control
- Large bright easy to read LCD display
- Constant voltage and constant current operation

* USB 1.1 Charging port will not charge products compliant with USB 2.0 only

Model 8540

150 W DC Electronic Load

NEW

Coming this winter

The 8540 DC electronic load is a low-cost, small form-factor instrument that is at home on both the bench and the production floor. Although this is an instrument in a small package, it can reliably test a 5 volt power supply to 30 amps and do it continuously.

- Operates between 0-60 VDC, 1 mA-30 A (150 W maximum)
- Two current ranges: 3 A (1 mA resolution) and 30 A (10 mA resolution)
- Easy operation
- Bright, easy-to-read display
- Digitally controlled
- CC/CV/CR operation
- Over-current protection from 10 mA to 30 A
- Short mode to simulate shorts
- Save up to 400 instrument settings

Model 9110

Multi Range DC Power Supply

NEW

The 9110 is a new type of power supply. Unlike conventional power supplies with fixed output ratings, the 9110 automatically recalculates voltage/current limits for each setting. The 9110 provides 100W output power in any Volt/Amp combination within the rated voltage (60 V) and current (5 A) limits. By providing greatly expanded choices of Volt/Amp combinations, users can cut down on the number of power supplies required and free up valuable bench space.

- 60 V/ 5 A, max 100 W output
- 10 mV/1 mA resolution over the full range
- Bright, easy to read display
- Very compact size and light weight
- Low ripple and noise
- Output On/Off control
- Store and recall 4 x 100 groups of preset Volt/Amp values
- Intelligent fan control

8500, 8510, 8520 Series

Programmable DC Electronic Loads

B&K Precision is extending its popular 8500 family of programmable DC Electronic loads with 8 additional models

A total of 10 models will cover a wide range of power, current and voltage configurations ranging from 300 W – 5000 W. Applications: testing of power supplies, batteries, fuel and solar cells

NEW

Model	Power	Rating
8500	300 W	120 V/30 A
8502	300 W	500 V/15 A
8510	600 W	120 V/120 A
8512	600 W	500 V/30 A
8514	1200 W	120 V/240 A
8518	1200 W	60 V/240 A
8520	2400 W	120 V/240 A
8522	2400 W	500 V/120 A
8524	5000 W	60 V/240 A
8526	5000 W	500 V/120 A

B&K PRECISION CORPORATION

has become the preferred choice for thousands of designers, engineers, technicians and service professionals. The reasons are clear; value, function and reliability.

In our latest Fall 08 Catalog, you will find many new products embracing the latest developments in technology. From programmable power supplies, several new lines of DDS generators to our expanding digital storage oscilloscopes family, you can confidently select the instruments and accessories that are just right for you.

You can rely on B&K's distributors for their service, assistance and making it easier to buy B&K products. B&K continues setting new standards in performance and value.

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